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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,573

03/29/2004

Mark Thomas

6488P008

3693

8791

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07/11/2007

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EXAMINER

NEILS, PEGGY A

ART UNIT

PAPER NUMBER

2885

MAIL DATE

DELIVERY MODE

07/11/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/812,573

Applicant(s)

THOMAS ET AL.

Examiner

Peggy A. Neils

Art Unit

2885

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19, 21, 22 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

Applicant's arguments with respect to claims 1-10, 12-18, 21 and 22 have been considered but are moot in view of the new ground(s) of rejection.

The indicated allowability of claims 11 and 19 is withdrawn in view of the newly discovered reference(s) to Hung. Patent # 6822357. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 -19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hung.

Hung shows an illumination system for a wheel which as shown in Figure 5 includes several light sources 2 (claims 21 and 22) attached to a power generator with a light conductor 3 (claims 11,12 and 19) disposed on a groove 50a in a wheel spoke 50 (claims 4 and 13). The light conductor 3 has a contoured surface to reflect and refract light as set forth in column 3, beginning at line 51. Claim 1 sets forth that the light source is positioned within a rotating reference frame of a wheel. Hung shows this feature. Claim 1 also states that the amount of light reflected from a visible surface of the wheel is greater than the amount of light from the light source directed away from the a visible surface of the wheel. As shown in Figure 5, the positioning of the light

source is such that there is no direct unobstructed light emitted directly outward away from a surface of the wheel. The entire light source is positioned such that all emitted light is channeled through the conductor which immediately refracts and reflects the light onto the wheel surface and outward. The light source is positioned at the wheel center cap (claims 3, 7, 15 and 18). As shown in figure 5, the structure of the power generator functions to shield direct light emission (claim 9). Regarding claim 9, the coil shaft 10 and coils 11 are metallic and hence will function to reflect light. Hung shows the light source mounted at the center of the wheel. To locate the light source elsewhere is a design choice which depends on the desired lighting pattern and is not instrumental to the operation of the lighting device (claims 14, 16 and 17). As its own generator powers each light source, Hung provides for independent operation of the light sources (claim 22). To provide a coating on the wheel surface is a choice depending on the material of the wheel and the amount of desired reflection.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hung as applied to claim 1 above, and further in view of Ellis, Jr.

Hung refers to the light source as a luminous element and does not specify the type of lamp to use. Ellis, Jr. teaches that it is known in the art to have an illuminated wheel using a filament type lamp. It would have been obvious to one skilled in the art that Hung could be modified to use a filament based lamp as the light source in the illuminated wheel in the same manner as taught by Ellis, Jr. because both references are directed to similarly structured lighting systems for wheels and the type of light source used is not critical to the invention.

Art Unit: 2885

**Conclusion**

Any inquiry concerning this communication or earlier communications should be directed to Examiner Neils at (571) 272-2377 on a Monday or Thursday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong (James) Lee can be reached on (571) 272-7044.

A handwritten signature in black ink, appearing to read 'Jong-Suk Lee' or 'James Lee', written in a cursive style.

JONG-SUK (JAMES) LEE  
SUPERVISORY PATENT EXAMINER